



Outline

- Background
- What is the Bay Act?
- How does it affect Loudoun property owners?
- What are the anticipated outcomes?



- The Board of Supervisors has identified <u>water</u> <u>quality protection as vital</u> to the future of Loudoun County and have included it as one of the key components of their Strategic Plan.
- In 2001 the Board adopted the Revised General Plan, which included <u>policies to protect the</u> <u>County's river and stream corridors</u> in response to public concerns.
- In 2003, the Board adopted the River and Stream Corridor Zoning Overlay District (RSCOD) to protect our streams.



- RSCOD was a customized, Loudoun-based, approach to water quality protection.
- RSCOD was invalidated by the Circuit Court of Loudoun County in 2004 as a result of multiple lawsuits.
- Regulations associated with erosion and sediment control, stormwater management, floodplains, and scenic buffers adjacent to streams remained in place.



- The Virginia Department of Environmental Quality (DEQ) monitors streams in Loudoun County for compliance with the Federal Clean Water Act.
- DEQ has identified stream segments that do not meet water quality standards in every watershed in the County.
- The number of stream impairments identified by DEQ continues to increase as more streams are assessed.
- Additional water quality protection tools are needed to address these impairments.



Stream Assessment

- March July 2009, Countywide Stream
 Assessment project evaluated water quality at 200 benthic sites and 500 habitat sites.
- Countywide, the assessment found that statistically 78% of the stream miles are stressed or severely stressed, and would be considered impaired according to the Department of Environmental Quality's (DEQ) water quality standards.
- The habitat study revealed that 75% of the stream miles are suboptimal according to DEQ habitat assessment protocols.





- Loudoun County Strategic Watershed Management Solutions (SWMS) initiative:
 - Collaboration of 69 representatives from 41 different groups, including business, government, conservation, agriculture, and citizens met between February and June 2006.
 - Developed a strategic plan to help guide future steps for watershed management planning in Loudoun County that emphasized:
 - Clean drinking water
 - Development sensitive to watershed functions
 - Stream health
 - Stewardship as a community responsibility
 - Continued stakeholder involvement



- Watershed Management Planning
 - First step was to analyze existing water quality data,
 - Second step was to form a list of watershed management recommendations.
- Comprehensive Watershed Management Plan (CWMP) completed by CH2M Hill in September 2008 identified approximately 90 watershed management recommendations, including strategies related to implementation of the Chesapeake Bay Preservation Act (Bay Act) and stream buffers.



Bay Act Initiative

- December 1, 2008 Board of Supervisors initiated discussion regarding water quality protection options.
- February 17, 2009 Board reviewed existing ordinances, re-adoption of RSCOD, and other options.
 - The 2001 amendments to the Revised General Plan included a policy indicating that the County would consider adoption of the environmental regulations of the Bay Act.
- April 7, 2009 Board approved the Chesapeake Bay Preservation Act Work Program.



The Bay Act

- The Bay Act is a water quality protection regulation that is mandatory in 84 Tidewater localities, including Prince William and Fairfax, that drain to the Chesapeake Bay.
- Localities outside of Tidewater may adopt the Bay Act to protect the quality of local streams and water bodies.
- The Bay Act seeks to reduce the amount of sediment and nutrients (nitrogen and phosphorus) carried by stormwater runoff into local waters (also known as nonpoint source pollution).



Nonpoint Source Pollution

- "Sediment" refers to loose particles of clay, sand, and silt eroded from rock or exposed soil and carried by stormwater runoff into local waterways. Suspended sediment clogs fish gills, suffocates aquatic organisms, and blocks sunlight from reaching underwater plants. It also increases water treatment costs.
- "Nutrients" refers to nitrogen and phosphorus contained in fertilizer, animal manure, and wastewater. Excess nutrients can cause algae blooms that reduce oxygen levels below thresholds required to sustain aquatic life and block sunlight from reaching underwater plants.



Nonpoint Source Pollution

- Sediment and nutrients originate from agricultural, urban, and suburban areas, thus programs aimed at reducing these pollutants must be applied broadly to address all pollutant sources.
- The Bay Act seeks to reduce the amount of these pollutants reaching local waterways through the implementation of pollutant control measures such as preservation of vegetated buffers adjacent to perennial streams, enhanced erosion and sediment control requirements, and septic pump-out requirements.



Key Elements

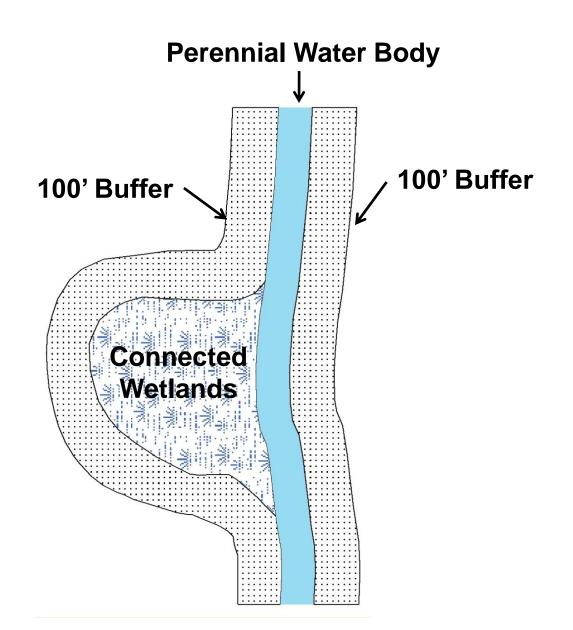
- Chesapeake Bay Preservation Area:
 - Resource Protection Area (RPA):

Lands that are sensitive to impacts that may cause degradation of state waters.

100-foot buffer located adjacent to and landward of perennial water bodies and connected wetlands.



Resource Protection Area (RPA)





Benefits of Buffers

- Preservation and establishment of stream buffers is widely recognized as the most cost-effective and efficient means of preserving and improving water quality.
- The 100-foot RPA buffer slows runoff, prevents erosion, and filters nonpoint source pollution (removes 75% of sediment and 40% of nutrients).
- Wetlands and stream buffers also:
 - store and dissipate floodwaters,
 - provide habitat for a variety of plants and animals
 - provide shade and organic matter necessary to sustain aquatic habitat



Key Elements

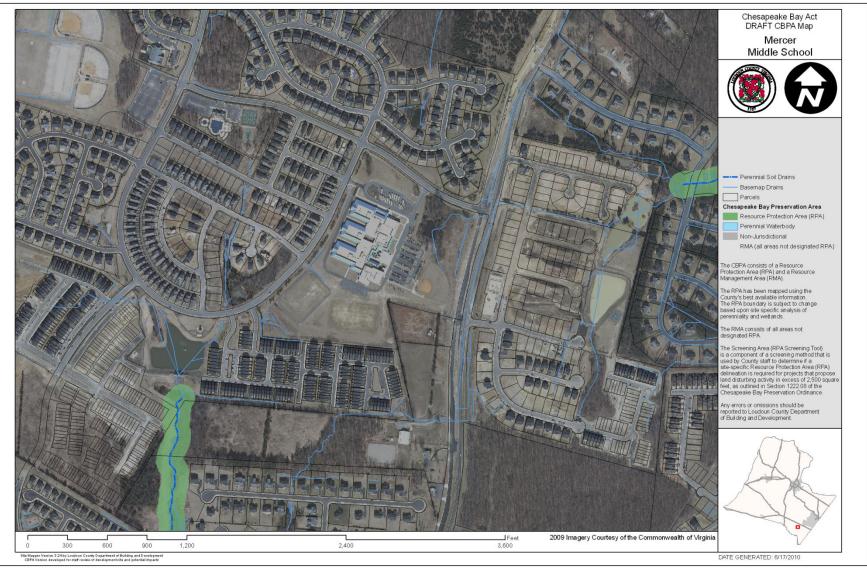
- Chesapeake Bay Preservation Area:
 - Resource Management Area (RMA):
 Lands outside the RPA that, if improperly used or developed, have the potential to cause significant water quality degradation or to diminish the functional value of the RPA.

All land outside of the RPA.

 Note: The RPA and RMA do not apply in the Towns.



CBPA Map





CBPA Map

- The CBPA map depicts the general extent of the RPA/RMA. It does not depict connected wetlands.
- The extent of the RPA is field-delineated in conjunction with development applications that propose land disturbing activity in excess of 2,500 square feet.
- The mapped RPA is based upon best available County perennial stream data and includes ~2/3 of perennial streams.
- The remaining ~1/3 of perennial streams fall within the area mapped as "RMA/Possible RPA" (yellow) on the "Draft RPA Screening Tool."



RPA Screening Tool





RMA/Possible RPA

- Area identified as "RMA/Possible RPA" in the Screening Tool includes all land located within 200 feet of any stream or water body previously identified through aerial photography.
- Perenniality cannot be deciphered from aerial photography.
- It is recognized that many of the streams and water bodies identified by the Screening Tool are drainage ditches or ephemeral or intermittent streams, or have subsequently been piped.
- As a result, staff estimates that approximately 20% of the streams located in the "RMA/Possible" RPA have the potential to be characterized as perennial.



RMA/Possible RPA

- The remaining perennial streams will be identified by RPA delineations performed in conjunction with projects that disturb more than 2,500 square feet of land within the area identified as "RMA/Possible RPA" (yellow).
- An RPA delineation will only be required (in conjunction with projects that disturb more than 2,500 square feet) in cases where the stream has the potential to be classified as perennial pending further review.
- An RPA delineation <u>will not</u> be required in cases where the stream is clearly not perennial.



RPA, RMA/Possible RPA, RMA

- Generally speaking, the amendments are most restrictive in areas closest to perennial streams and water bodies (the RPA) and become less restrictive farther from perennial streams and water bodies (the RMA).
- Thus, there are different requirements for land designated RMA, RMA/Possible RPA, and RPA.



Disturbances < & > 2,500 sf

- Disturbances <2,500 square feet (sf):
 - $14' \times 20' \text{ deck} = 280 \text{ sf}$
 - $-15' \times 15'$ patio = 225 sf
 - $-20' \times 20' \frac{\text{sunroom}}{\text{sunroom}} = 400 \text{ sf}$
 - $-24' \times 24'$ garage = 576 sf
 - $-20' \times 40' \text{ pool} = 800 \text{ sf}$
 - $-20' \times 50'$ barn = 1,000 sf
 - $-12' \times 14'$ shed = 168 sf
- Disturbances >2,500 sf:
 - House
 - Large pool with pool house
 - Large addition
 - Not likely on smaller urban and suburban lots

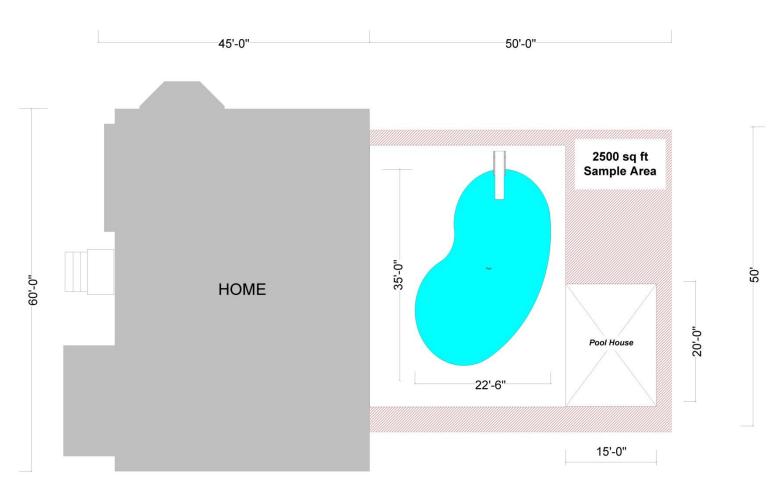


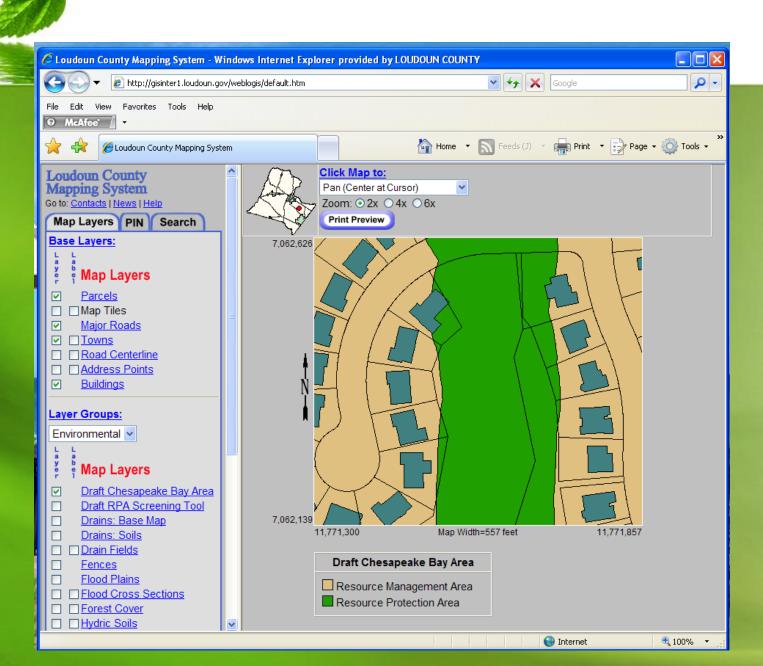
Disturbance <2,500 sf





Disturbance < 2,500 sf



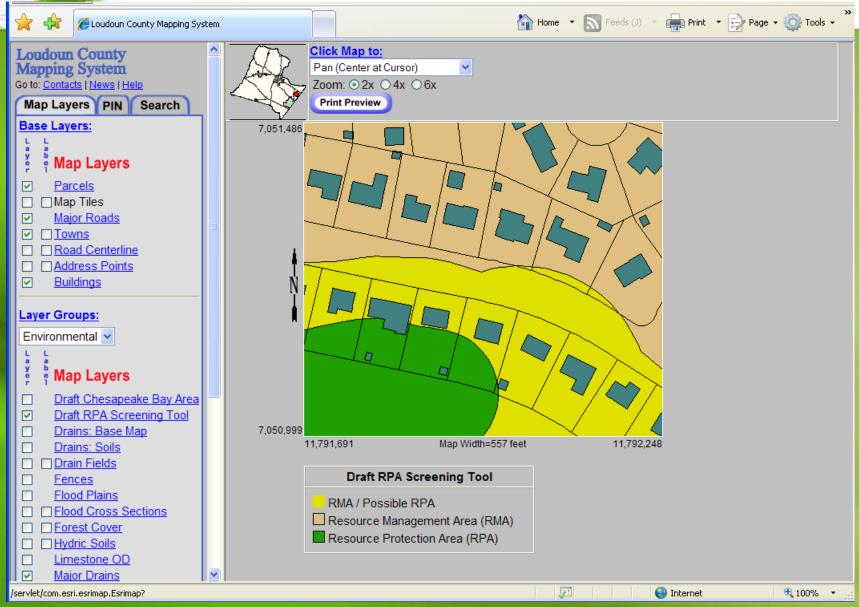




RMA

- Disturbances <2,500 sf:
 - If there is no RPA on the property, there are no additional requirements (business as usual).
 - If there is RPA on the property, a Locational Clearance is required to locate the improvement. If it is located outside the RPA, there are no additional requirements. (Requirements for improvements located within the RPA will be addressed later.)
- Disturbances >2,500 sf:
 - A grading permit is required.







RMA/Possible RPA

- Disturbances <2,500 sf:
 - (Same as RMA, as explained on the previous slide.)
- Disturbances >2,500 sf:
 - A grading permit is required.
 - An RPA delineation may be required in cases where further review indicates that the stream or water body has the potential to be perennial. The RPA delineation for a ¼ to ½acre property is estimated to cost between \$1,700 and \$3,900.



RPA

- The <u>landward 50-feet</u>:
 - Attached structures (e.g., decks, additions)
 with a cumulative footprint up to 2,500 sf are eligible for an administrative waiver.
 - Attached structures with a cumulative footprint >2,500 sf and detached accessory structures (e.g., patio, gazebo, detached garage, shed) require an exception.
- Disturbances >2,500 sf and/or encroachments into the <u>seaward 50-feet</u> require an exception.



Waivers/Exceptions

- Administrative Waivers are processed by staff.
- RPA Exceptions require notice to landowners of property abutting and immediately across the street from the property and a public hearing before the Board-appointed Chesapeake Bay Review Board.



Waivers/Exceptions

- Waivers/Exceptions for disturbances <2,500 sf in the landward 50-feet:
 - Staff may perform the RPA delineation and the property owner can provide all other required materials without assistance from a consultant or engineer.
- Waivers/Exceptions for disturbances >2,500 sf and/or encroachments into the seaward 50-feet:
 - A consultant RPA delineation and tree cover inventory and an engineered plan are currently required (est. cost of \$3,200 - \$6,900 for ¼ to ½ acre lot).



RPA Statistics

- Based on the draft CBPA map, approximately:
 - 10% of parcels contain mapped RPA.
 - 44% of the mapped RPA falls within Major Floodplain.
 - Countywide, there are 52,000 addressed structures.
 - 1,850 addressed structures are located in the mapped RPA and the first 25-feet adjacent to the RPA (3.5%).
 - 300 addressed structures are located in the seaward 50-feet of the RPA (0.5%).
 - 96% of addressed structures are located outside the mapped RPA.



Permitted Uses in the RPA

- The water quality functions of the buffer are directly related to the presence of filtering vegetation that retards runoff, prevents erosion, and filters nonpoint source pollution.
- Disturbances of the buffer impact the water quality protection functions of the buffer.



Permitted Uses in the RPA

- Existing lawns may be maintained, but may not be expanded.
- Fences that do not inhibit or alter surface flow may be installed, provided that only vegetation necessary for the placement of the fence is removed and replacement vegetation is provided.
- Dead, diseased, dying, or storm-damaged trees or shrubbery and noxious weeds may be removed without County approval, provided that replacement vegetation is provided.
- County approval is required for removal of vegetation to establish sight lines/vistas, access paths, and shoreline erosion control projects.



Septic Pump-Out

- Septic systems must be pumped out at least once every five years. (The Loudoun County Health Department recommends a pump-out every 3-5 years for routine maintenance.)
- The average cost for the septic pump-out is \$218 (or \$44 per year).
- The cost to repair or replace a failed system is greater.



Agricultural Requirements

- Cropland may encroach 50 feet into the buffer with implementation of an erosion control or a nutrient management Best Management Practice (BMP), as determined by the Soil and Water Conservation District (SWCD).
- Cropland may encroach 75 feet into the buffer when agricultural BMPs that address erosion control, nutrient management, and pest management are implemented.



Agricultural Requirements

- Grazing is permitted within the buffer as long as permanent vegetative cover is maintained (e.g., 90% vegetative cover, equally distributed, and established to a minimum height of 2 inches).
- In the event that permanent vegetative cover cannot be maintained, BMPs may be required.
- Grazing land BMPs include fencing, alternative water systems, and rotational grazing.
- Where fencing is determined to be the appropriate BMP, it is established 25 feet from the stream.



Urban Development

- Where an agricultural or silvicultural use in the buffer ceases and the lands are proposed to be converted to other uses (e.g. subdivision plan, construction plan, site plan), the full width of the buffer is required to be planted. Planting specifications are outlined in the Facilities Standards Manual (FSM).
- While HOAs and property owners are encouraged to plant the buffer to improve water quality, the buffer is not required to be planted.



Urban Development

- Minimum Lot Size/Setbacks for new residential lots:
 - 20,000 sf independent of the RPA for lots served by public water/sewer:
 - 40,000 sf independent of the RPA for lots served by well/septic.
 - (Exception where density would be affected.)
 - Minimum setback between principal structure and RPA corresponding to the required yard.
- Minimize land disturbance
- Preserve indigenous vegetation
- Minimize impervious cover



Fiscal Impacts

- Neighboring jurisdictions found no significant impacts on fair market values as a result of the Bay Act.
- The draft amendments will be implemented by existing staff in conjunction with the County's existing grading and development review process.
- Enforcement will occur via the same complaintbased system currently in place for violations of other County ordinances.



Goals/Outcomes

- Implement the best available tools to protect and improve local water quality.
- Preserve and enhance existing riparian buffers.
- Preserve wetlands.
- Reduce the trend of additional stream impairments.
- Reassess water quality by performing a Countywide Stream Assessment in five years.
- Develop subwatershed plans.





Additional Information

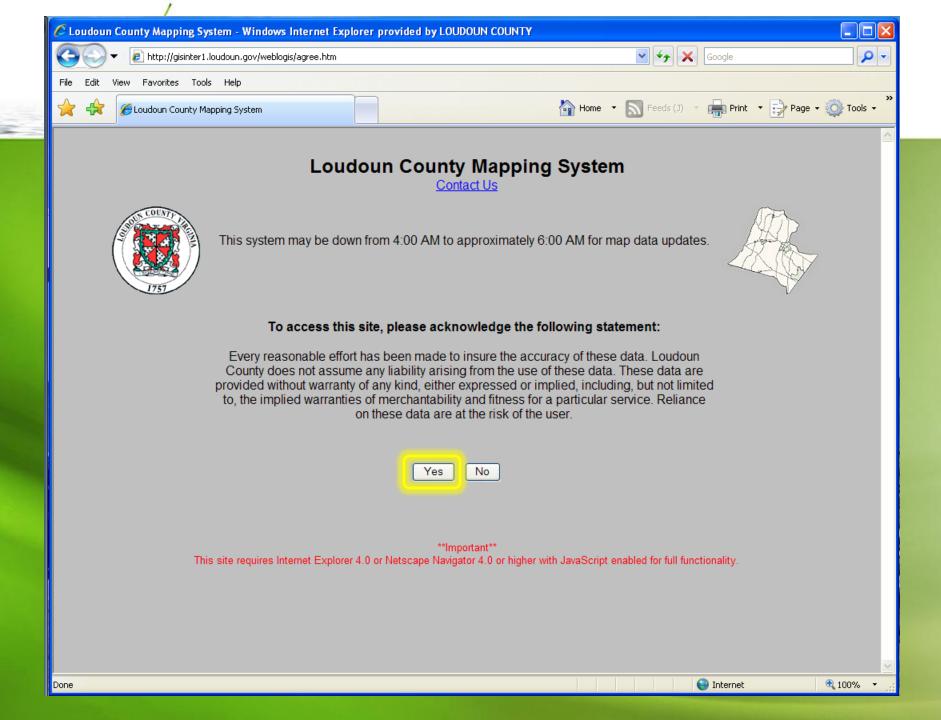
- Additional information, including Frequently Asked Questions (FAQs), is available:
 - > on the Chesapeake Bay website at www.loudoun.gov/chesapeakebay
 - > or by calling the Chesapeake Bay Hotline at (703) 777-0655.

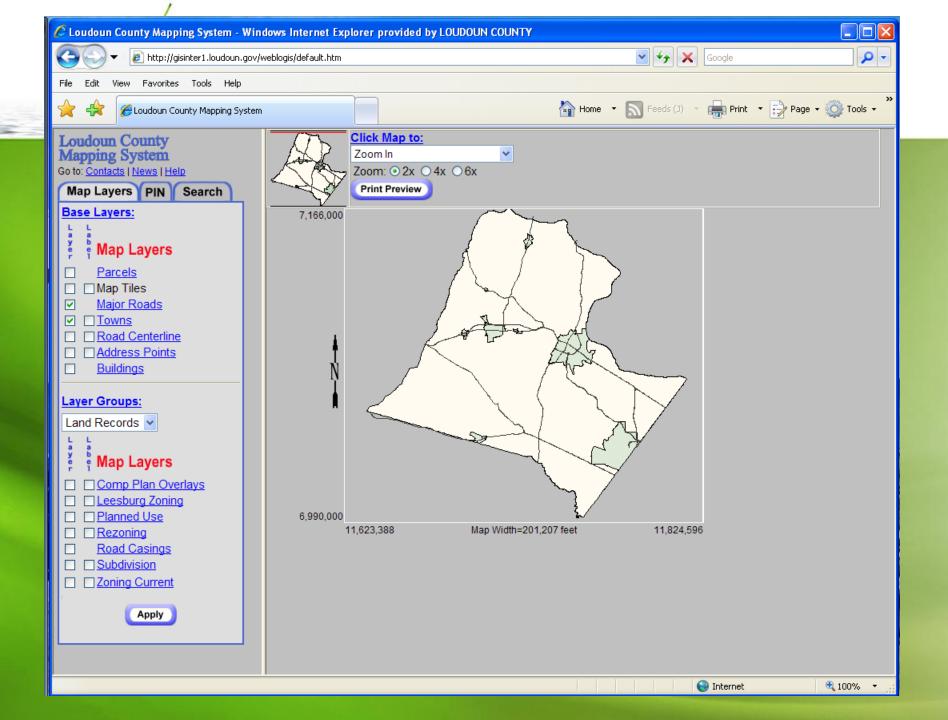


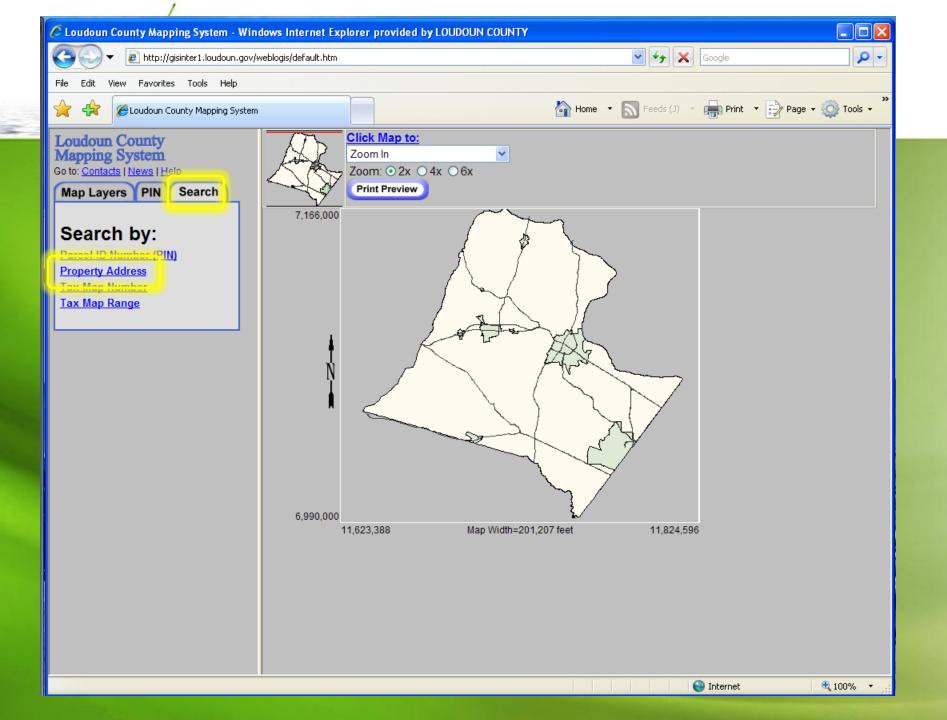


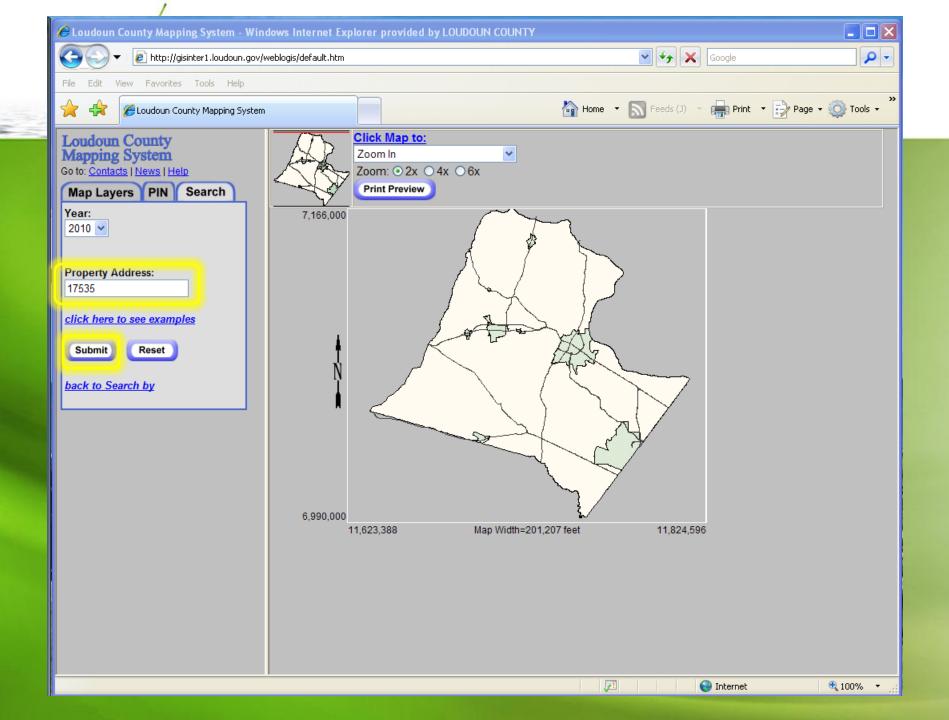
Mapping Your Property

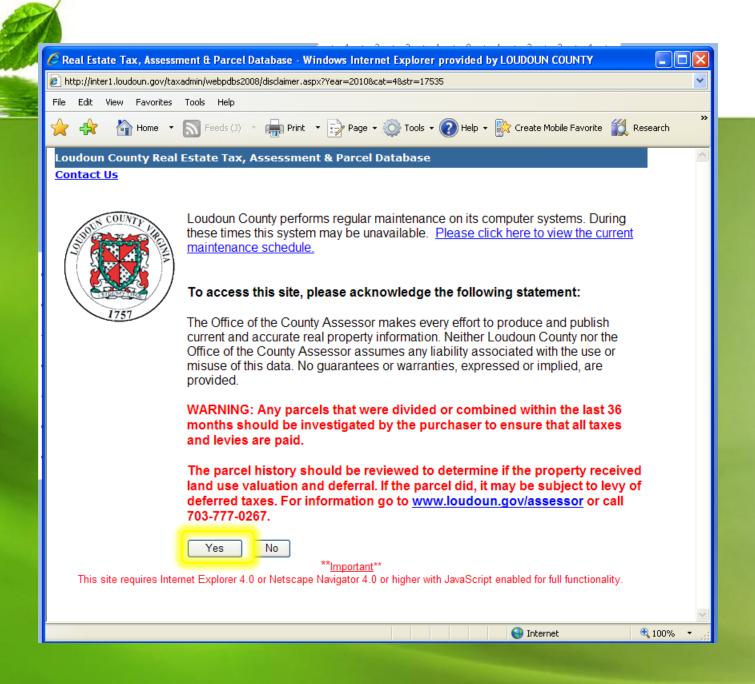
www.loudoun.gov/weblogis













Results for Year 2010 17535 - 3 Parcels Found

Tax Map No. PIN	Мар	Taxes	Owner Name	Address
/ <u>34//39////56/</u> <u>555-16-1765-000</u>	Map It	Tax History Pay Taxes	***YOUR NAME HERE***	17535 BRISTOL TE
/ <u>34//38////19/</u> 555-15-5245-000	Map It	Tax History Pay Taxes	OTHER	17535 FALLS PL
/36//29/////5/ 453-19-9478-000	Map It	Tax History Pay Taxes	OTHER	17535 FRANCIS FARM PL

